AGFA Silette Pronto
Type 4 (1958)

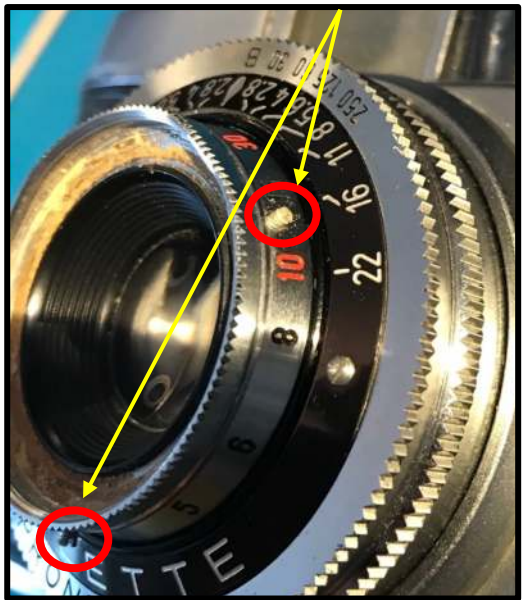
CLA of Camera and Shutter
Tim Langsford, July 2020.

Preliminary Examination:

Camera pretty dirty. Aperture ring smooth. Speed cam slightly loose in feel. Occasionally not firing, didn't appear to be speed dependent though. Also, felt a slight delay in release action. Bulb working well. Self-timer not working at all: didn't seem to have the force to make it through the complete cycle. Denting to focus ring.

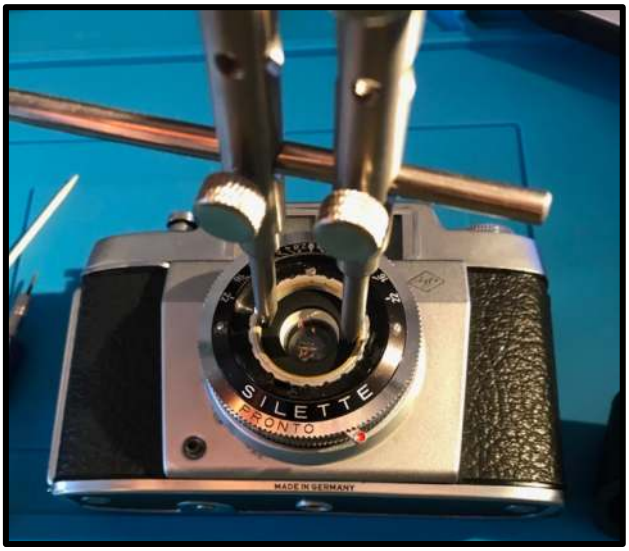
A. Dismantling Camera to Free the Pronto Shutter Mechanism:

1. Set focus ring to infinity, and remove it. It is held by 3 slot-head grub screws. *** I initially tried a rubber lens tool, which served only to remove the lens name plate from the focus ring. This is not necessary.**



2. Remove front element by counter-clockwise rotation (use of lens rubber was required). *** I first made a small scratch mark at the 12 o'clock position in order to ensure correct positioning upon reassembly.**

3. Remove the exposed retaining ring with spanner wrench (counter-clockwise).



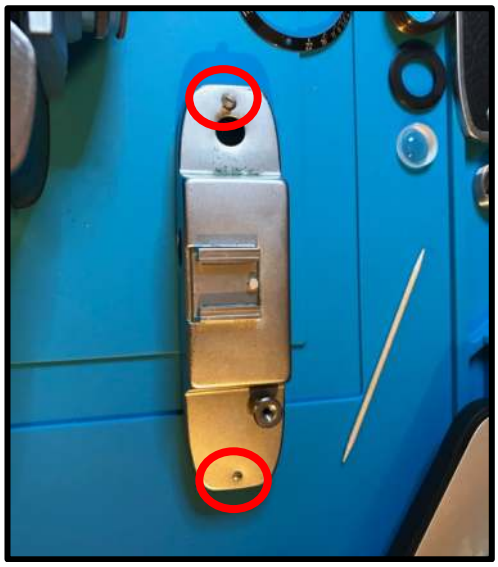
4. Remove middle (negative) lens by tipping it out.

5. Remove Silette nameplate, held by 2 slot-head screws.

6. Remove bottom plate, held by 2 slot-head screws. Beware that the rewind button is loose.

7. Remove rewind knob and sprung spacer (open film door, hold rewind fork with a tool and turn knob anti-clockwise).

8. Remove top plate, held by 2 slot-heat screws (note that the left screw is long, the right is short).

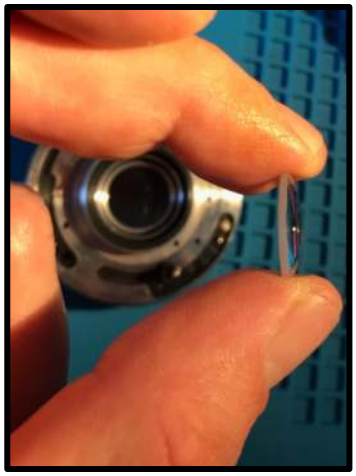


9. Lift off viewfinder module. This is not secured by screws.

10. Open film-door and remove 2 slot-head screws which hold the front plate. The matt-black painted focal plain (the paint removes internal reflections) and shutter cocking driver will most likely fall out. Note the groove in the top of the focal plane which allows the gear of the driver to rotate freely.

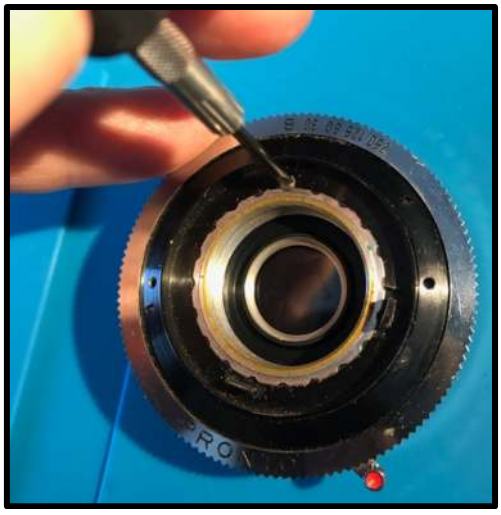
11. Remove the rear retaining ring with a spanner wrench.

12. De-solder the 2 flash sync wires from the solder pins, noting their placement. Remove rear element retaining ring and tip out the rear lens element. Note the orientation of the element. The Pronto shutter mechanism is now free for disassembly.

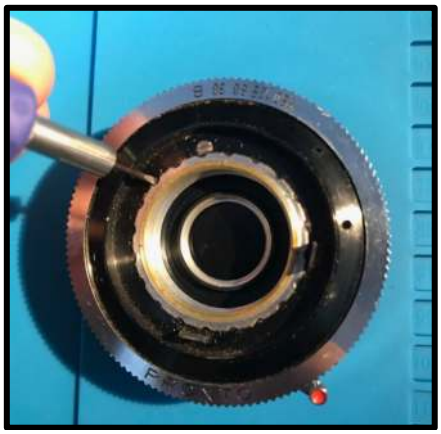


B. Pronto Shutter Mechanism Disassembly:

1. Before beginning disassembly, get a feel for how tight the speed-control cam is, in order to return the shutter to this feeling (or tighter in order for the shutter to feel a good job has been done). Set the shutter speed to B. Then, rotate the half-head locking screw which holds the scalloped retaining ring, 180˚.



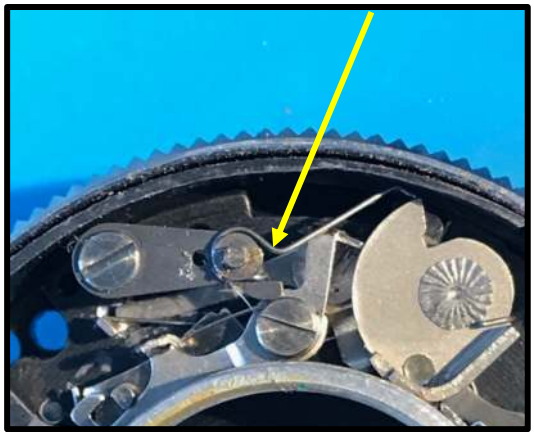
2. Using an appropriate tool, rotate the scalloped retaining ring anti-clockwise to remove it. Then lift off the plastic cover plate.



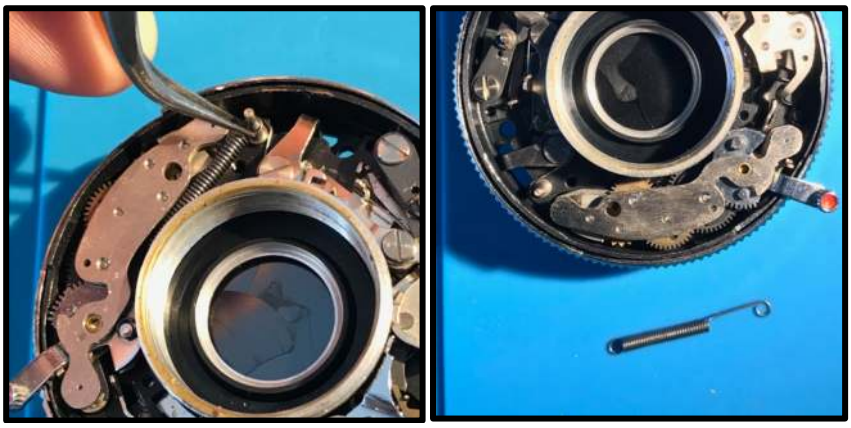
3. Remove the thin black spacer plate (it may already have come off with the cover plate.)

4. Ensuring the shutter is still set to B, lift off the speed-control cam (the large metal plate with ‘Pronto’ printed on it.

5. Remove the detent-lever spring with tweezers.

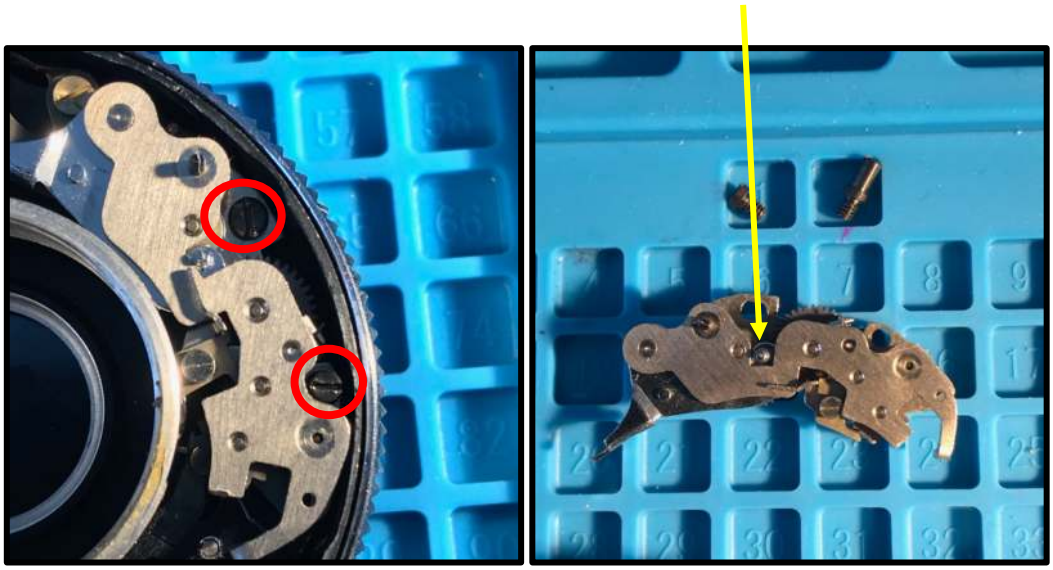


6. Ensure the delayed-action escapement is in the released position and remove the delayed-action drive spring with tweezers.

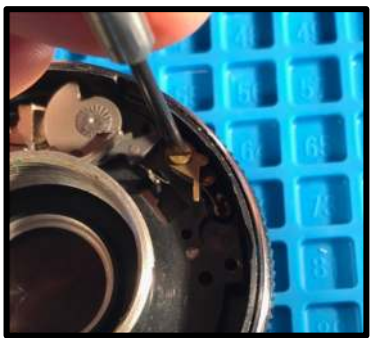


7. Partially cock delayed-action escapement until its first gear clears the lens flange and lift the whole escapement out (there are no screws holding it).

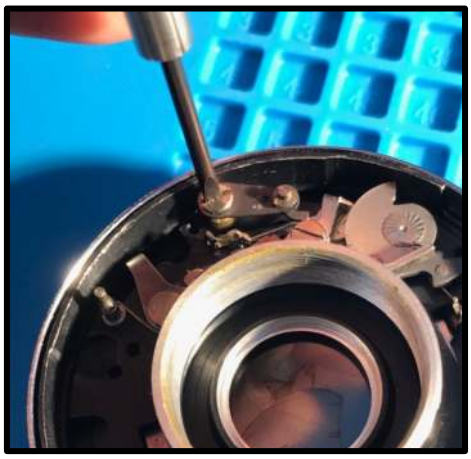
8. Cock the shutter. Remove the 2 slot-head screws holding the speeds escapement. Lift the speeds escapement out with tweezers via the pin of the retard lever.



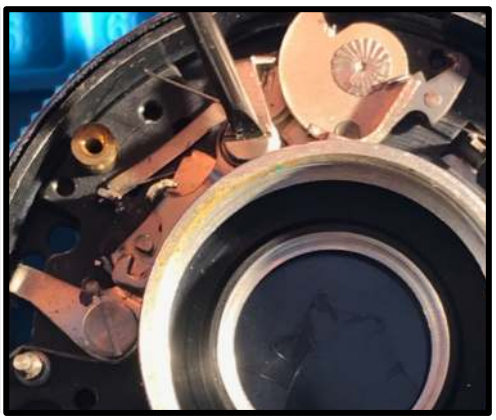
9. Remove the flash contact assembly by removing the screw, contact-closing lever and the brass brushing (which is loose). *** The left-hand photo shows that, at some point in cocking and releasing the shutter to explore functions, the leaf lever has become detached from its position on the blade-operating-ring tab. As this ring will be disassembled for cleaning, this is not an issue.**



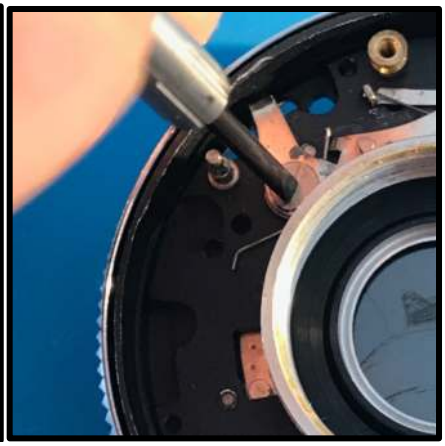
10. Remove the detent lever (this is the lever that clicks with each shutter speed setting on the speed-control cam) by first removing its screw.



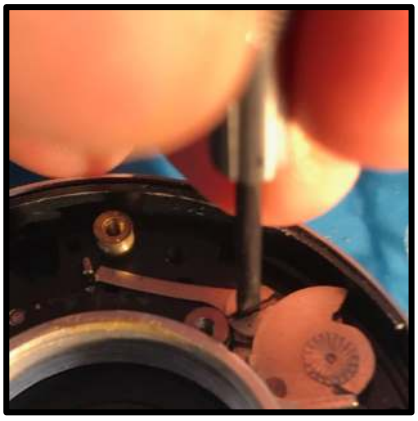
11. Disconnect the long end of the bulb-lever spring from its place on the control tab of the bulb-lever. Remove the screw which holds the bulb lever in place, remove the lever and be aware of the spacer under the lever which allows the bulb lever to clear the internal release mechanism.



12. Disconnect the long end of the outer-release-lever spring from the mechanism-plate post. Then, remove the screw which holds the outer-release lever and remove the lever and spring.

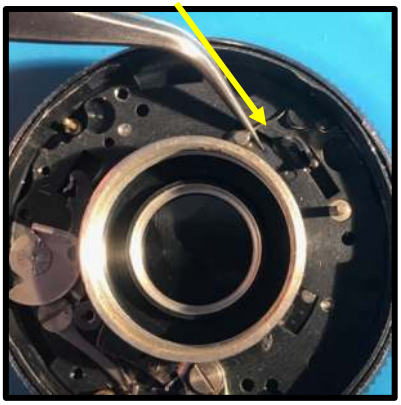


13. Disconnect the long end of the inner-release-lever spring which is hooked onto a notched tab on the lever. With a finger, rotate the main lever until the screw is visible and remove it, along with the lever. Leave the spring in place to avoid the risk of distortion.

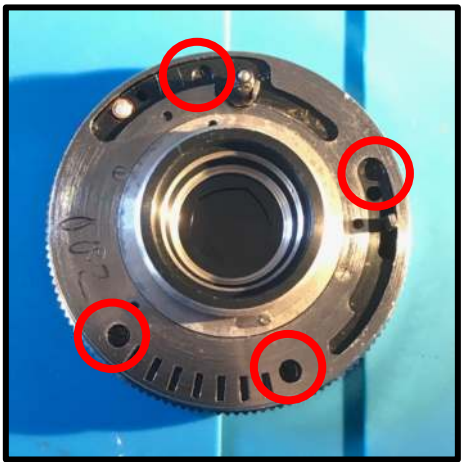


14. If proceeding with removal of shutter blades, it is sensible to clean and then reinstall the inner and then outer release lever mechanisms. ***I used 99.9% Isopropyl Alcohol and clean cloths.**

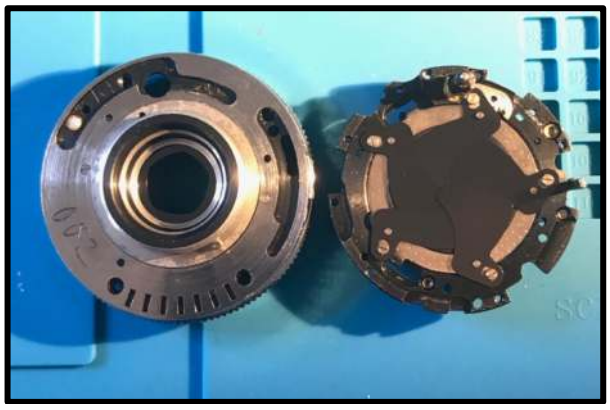
15. To begin removal of shutter blades, first remove the blade-operating-ring spring, beginning from the long end.



16. Turn the shutter upside down and remove the four mechanism-plate screws. Note the location of the long screw.

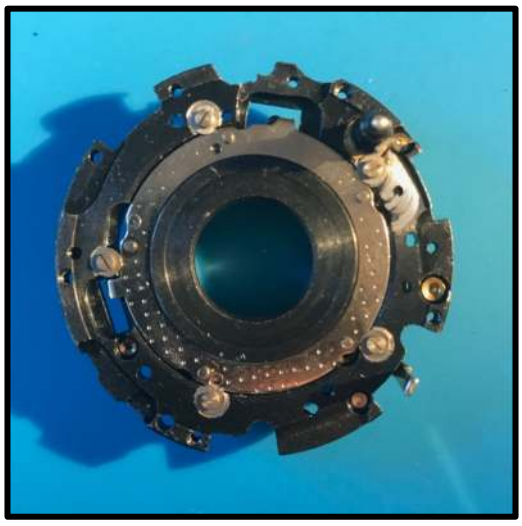


17. Carefully lift the housing up and off the mechanism plate.



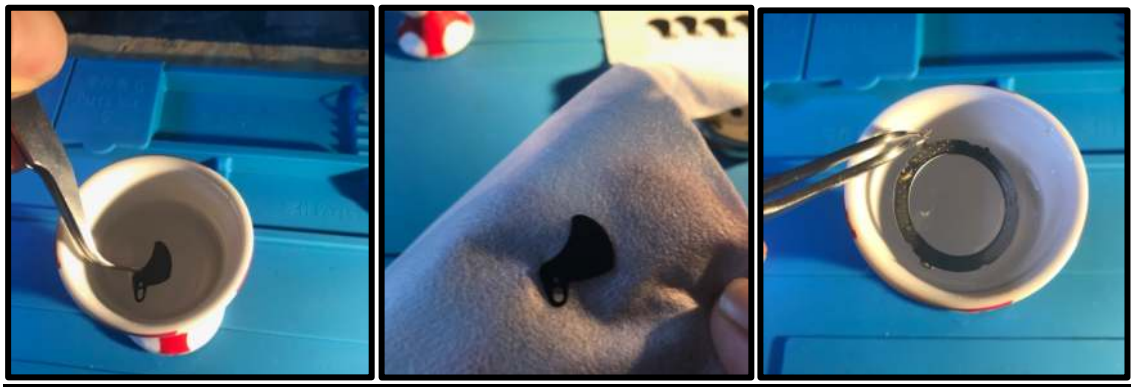
18. The 5 shutter blades are now exposed and can be removed with tweezers in a counter-clockwise sequence.

19. Remove the blade operating ring by rotating to align its cut-outs with the position of the screws and washers which hold it in place. *** The Nat-cam instructions describe the need to remove a stop plate in order to be able to do this, however on my example there didn't seem to be this stop plate and the blade operating ring was easy to rotate into place and remove.**

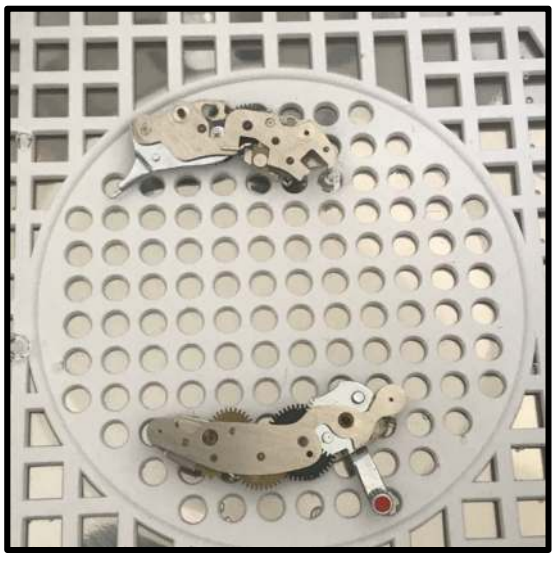


C. Cleaning, Lubrication and Reassembly of Pronto Shutter:

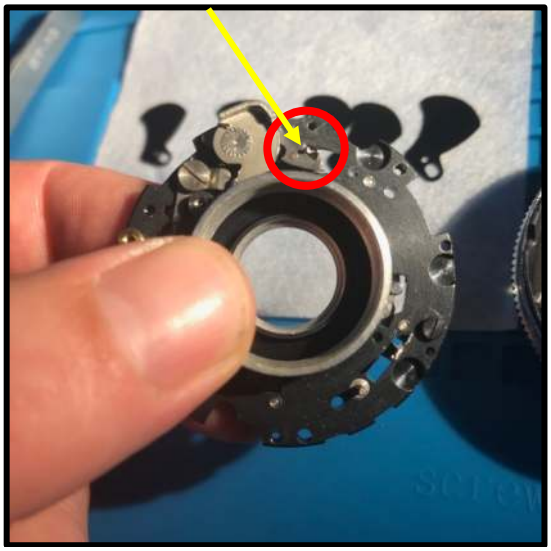
1. Clean shutter blades (this was especially important with mine as there was visible oil on the blades, which could slow down shutter speed) by immersing in Isopropyl and wiping with a clean cloth (I was using PecPads). Do the same with the blade operating ring. Clean the track in the mechanism plate by dipping a cloth in the Iso, then wiping off with a clean cloth. The speed-control cam can also be cleaned at this point.

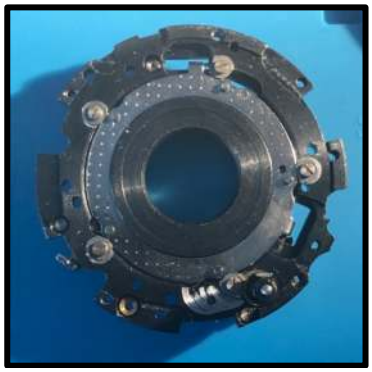


2. For the cleaning of the escapements, I chose to use an ultrasonic cleaner. The fluid was simply water with a little washing up liquid. I believe I set the cleaner for 3 or 4 minutes. After this, the escapements were washed in clean water, before being submerged in Isopropyl.

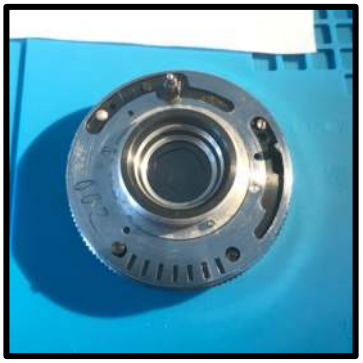


3. To reinstall the blade-operating ring, cock the shutter, then ensure that the leaf-lever spring is sitting behind the post underneath the leaf-lever. The blade-operating ring may now be installed by aligning its cutouts with the mechanism plate washers then turning, ensuring the tab ends up sitting in the notch of the leaf-lever.



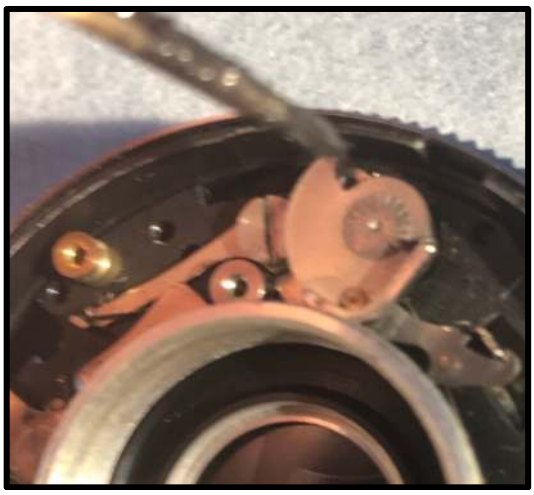


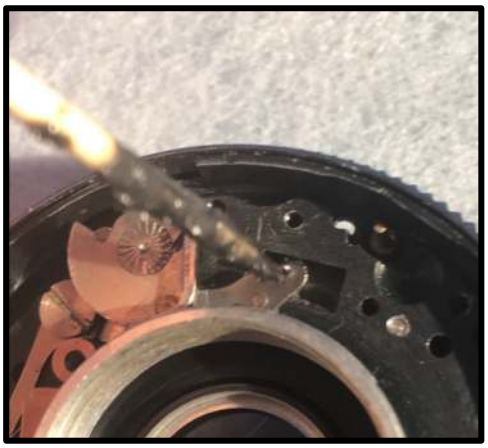
4. Release the shutter and reinstall the shutter blades, proceeding in a clockwise sequence. Seat the housing over the back of the mechanism plate and secure with the 4 screws.

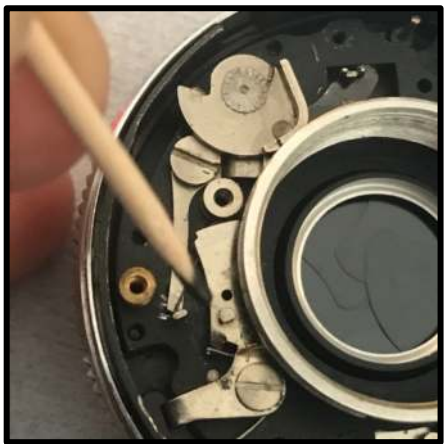


5. Reinstall the blade-operating-ring spring.

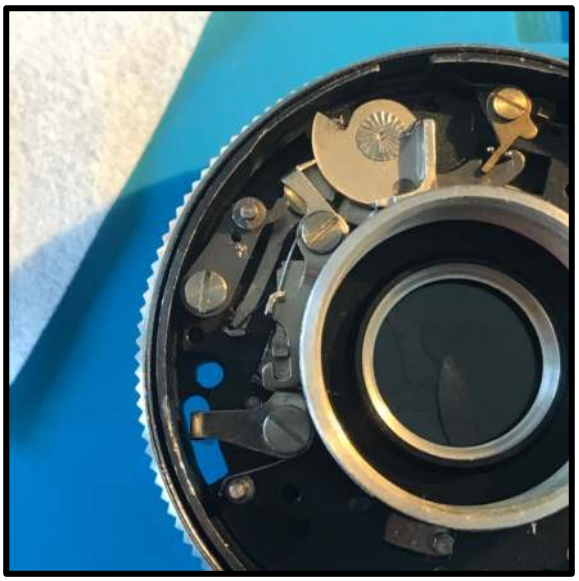
6. Lubricate with appropriate grease these points; the surface of the blade-operating-ring spring that comes against the blade-operating-ring post, the latching surface of the main lever, the cam edge of the leaf lever, the edge of the outer-release lever that connects with the inner-release lever. *** I'm aware that these photos aren't very good and, most importantly, they look like a huge amount of grease is being used! I can confirm that only the tiniest bit of (moly) grease was used at each lubrication point.**



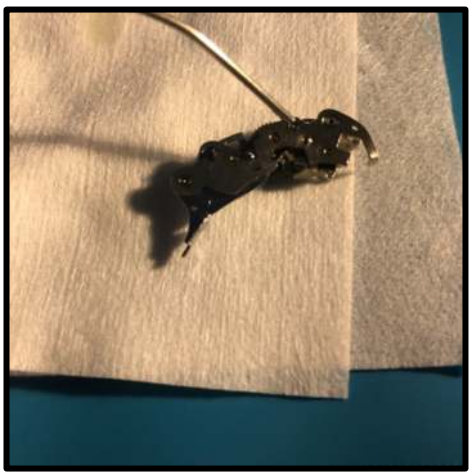


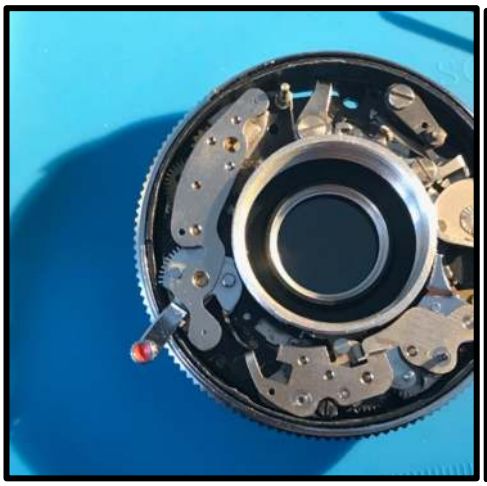


7. Cock the shutter. After cleaning them, reinstall the detent lever, bulb and flash contact assemblies.

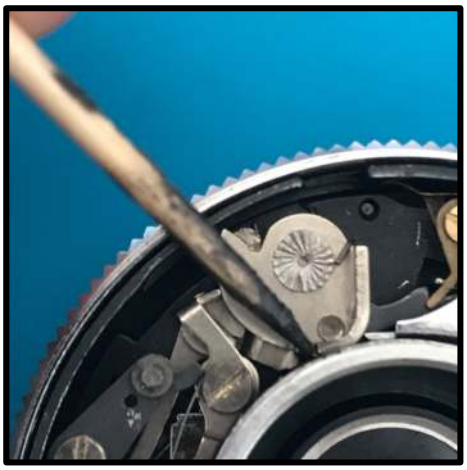


8. Lubricate the gear pivot points of the speed and delayed-release escapements with a tiny drop of oil, I use Nyoil. Reinstall the escapements. Test for proper functioning. *** Following cleaning and lubricating, the self-timer, which was previously not working, worked perfectly.**



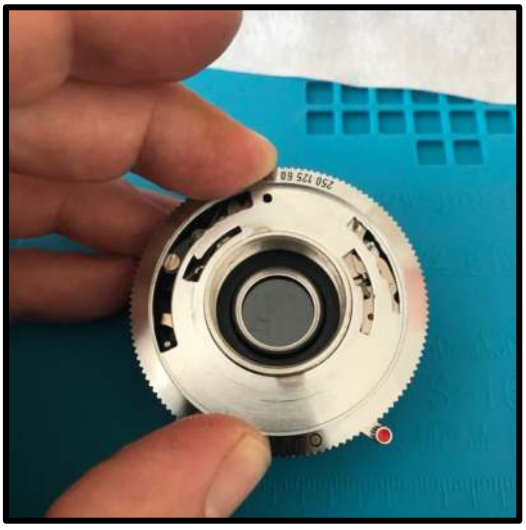


9. Lubricate with grease the end of the retard-drive lug on the main lever.

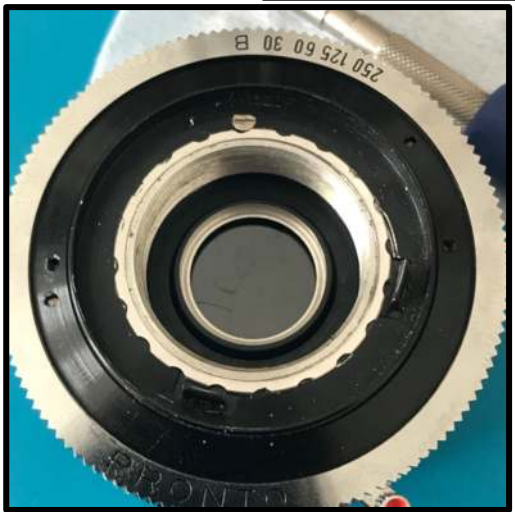


10. Reinstall the detent lever spring.

11. Lubricate with grease the edges of the speed-control cam cut-outs which come into contact with the detent lever, pallet-control tab, bulb control tab and retard-lever control pin. Ensure the shutter is released, and reseat the speed-control cam. Use tweezers to lift the detent lever into place. *** I found it's important to keep pressure on the cam for the next steps to avoid the detent lever popping out of place.**



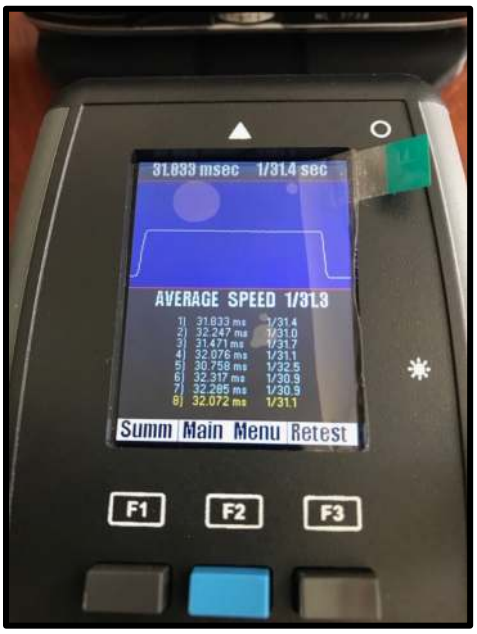
12. Replace the thin spacer, ensuring the pins on the shutter fit the spacer's holes. Replace the plastic cover plate, ensuring locating slots also fit the pins. Maintaining pressure, reinstall the scalloped retaining ring. Tighten until changing shutter speed feels nice and tight, then lock the ring with the half-head locking screw. *** As the detent lever kept slipping out of its slot, I had to repeat this process several times.** Finally, check operating thoroughly at all shutter speeds and also with the self-timer.



D. Testing

I reassembled the shutter mechanism with the main camera body following the exact reverse of disassembly described, cleaning and lubricating moving parts and the lenses as required. I used a small amount of contact cement to glue on the lens name plate.

1. I used a Phochron XA shutter speed tester to check all shutter speeds.



2. Finding all speeds to be agreeable, I loaded the camera with a roll of Kentmere 100 and went out to shoot a test roll. I then self-developed this roll at home using a Paterson tank in ID-11 (ilford) developer, stock, at 20˚C for 9 minutes. Once dry, the negatives were scanned using a Plustek 8100 to create large .dng files, and then had a quick pass through Lightroom to invert and add a little contrast.

f16, 1/250

f8, 1/250

f11, 1/125

f16, 1/30